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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/585,678	06/01/2000	Eric E. Ellingson	60191	4533

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DIGIMARC CORPORATION
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EXAMINER

PATEL, SHEFALI D

ART UNIT PAPER NUMBER

2621

DATE MAILED: 02/27/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/585,678

Applicant(s)

ELLINGSON, ERIC E.

Examiner

Shefali D Patel

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. The response after final rejection was received on February 10, 2004.
2. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

Response to Arguments

3. Applicant's arguments, see pages 2-5 of remarks, filed on February 02, 2004, with respect to the rejection(s) of claim(s) 1-5, 11, 15-25 under 35 U.S.C. 102(e) and claims 6-10, 12-14 under 35 U.S.C. 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Marandi (US 4,994,831).

Claim Objections

4. Claim 2-3 objected to because of the following informalities: Claim 2 line 2 states: "auxiliary message, and:." This ought to be "auxiliary message, and". Please delete ":" it is unnecessary. Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-2, 4, and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Marandi (US 4,994,831).

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With regard to **claim 1** Marandi discloses a method for capturing and encoding a user attribute (information in the data card 14, Fig. 1) in a media signal (i.e., photographing a number of 'subjects' at col. 3 lines 22-27. The subject's image is being obtain at col. 4 lines 29-44), the method comprising: in a media signal capture device (camera 10 as seen in Fig. 1), capturing a user attribute of a user of the media signal capture device (capturing a data card, which has subject's information, from receiving holder 14, col. 3 lines 46-55); wherein the user attribute comprises an image of an identifying characteristic of the user (See, col. 5 lines 5-9 and col. 2 lines 49-63. "a drivers license, employee id card or the like" identifies characteristics of the user, inherently.); encoding a representation of the user attribute into a media signal captured by the media signal capture device (the subjects' image and the information from the data card are being superimposed with no discernible boundary between the data image and the subject images at col. 4 lines 44-61).

With regard to **claim 2** Marandi discloses the user attribute (i.e., information in the data card 14, Fig. 1) forming at least part of an auxiliary message (capturing a data card from receiving holder 14, col. 3 lines 46-55) and embedding the auxiliary message into the media signal (the subjects' image and the information from the data card are being superimposed with no discernible boundary between the data image and the subject images at col. 4 lines 44-61).

With regard to **claim 4** Marandi discloses the media signal (i.e., photographing a number of 'subjects' at col. 3 lines 22-27) is being an image (subject's image, see, col. 3 lines 55-65) and the media signal capture device is a camera (camera 10 as seen in Fig. 1 and its respective portion in the specification) or (scanner).

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Claim 11 recites identical features as claim 1 except claim 11 is a system claim. Thus, arguments similar to that presented above for claim 1 is equally applicable to claim 11.

Applicant's attention is invited to Fig. 1 of Marandi where a system is disclosed.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 3, 5, and 15-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Marandi in view of Musgrave (hereinafter, "Musgrave '746") (US 6,208,746).

With regard to **claim 3** Marandi discloses embedding the auxiliary message into the media signal as disclosed above in claim 2. Marandi does not expressly disclose steganographically embedding the auxiliary message into the media signal such that the message is substantially imperceptible to a human. Musgrave '746 discloses this at encoder 26, which embeds biometric data 24 in data bit stream 20, col. 3 lines 41-49 and Musgrave also discloses "electronic watermarks for electronic transactions...accordingly, end-to-end electronic transactions are provided with secure authentication and protection from fraud and unauthorized use, such as by theft" at col. 4 lines 40-47. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the teaching of Musgrave '746 with Marandi. The motivation for doing so is that Marandi suggest one way to superimpose data information with the data information of the user and also Musgrave '746 teaches

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steganographically embedding information into the media signal at col. 3 lines 40-49 and col. 3 lines 60 to col. 4 lines 1-5. Therefore, it would have been obvious to combine Musgrave '746 with Marandi to obtain the invention as specified in claim 3.

With regard to **claim 5** Musgrave '746 discloses the media signal is being a sequence of video frames (Musgrave '746 discloses of encoding in MPEG (Moving Picture Experts Group) which is a sequence of video frames, see col. 3 lines 45-47) and the media signal capture device is a video camera (it is inherent to capture a sequence of video frames because a video camera is required to acquire video frames).

With regard to **claim 15** Musgrave '746 discloses encoder for embedding the user attribute into the media signal (encoder 26 embedding biometric data 24 in data bit stream 20, col. 3 lines 41-49).

Claim 16 recites identical features as claim 5 except claim 16 is a device claim. Thus, arguments similar to that presented above for claim 5 is equally applicable to claim 16.

With regard to **claim 17** Musgrave '746 discloses the user attribute capture unit including an image sensor for capturing the image of the identifying characteristic of the user (image sensor within the scanner used to scan the biometric data of the user. See, col. 3 lines 19-22).

With regard to **claim 18** Musgrave '746 discloses user attribute including a voice recording (i.e., speech pattern, See, col. 3 line 221-23).

With regard to **claim 19** Musgrave '746 discloses user attribute being a retinal scan (See, col. 3 line 20).

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Claim 20 is rejected the same as claim 1. Thus, arguments similar to that presented above for claim 1 is equally applicable to claim 20. Claim 20 distinguishes from claim 1 only in that it recites a decoding claim. Thus, arguments similar to that presented above for claim 1 is equally applicable to claim 20. Applicant's attention is invited to Fig. 1 of Musgrave '746 where a decoding system is disclosed. Also, see respective portion in the specification for decoder 30, col. 4 lines 6-40. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the teaching of Musgrave '746 '746 with Marandi. The motivation for doing so is that one would be motivated to decode the data encoded to check for the authentication, security, and for falsify information. Therefore, it would have been obvious to combine Musgrave '746 with Marandi to obtain the invention as specified in claim 20. With regard to **claim 21** Musgrave '746 discloses the decoding (decoder 30) comprising decoding the representation of the user attribute data from the media signal (decoding biometric watermark at col. 4 lines 36-39).

With regard to **claim 22** Musgrave '746 discloses the user attribute data comprising a retinal scan (See, col. 3 line 20).

With regard to **claim 23** Musgrave '746 discloses the user attribute data comprising a fingerprint scan (See, col. 3 line 21).

With regard to **claim 24** Musgrave '746 discloses the user attribute data comprising a representation of a voice recording and the representation derived from the image of the identifying characteristic of the user (speech recognition, See, col. 3 line 221-23).

Claim 25 recites identical features as claim 20 except claim 25 is a computer readable medium claim. Thus, arguments similar to that presented above for claim 20 is equally applicable to claim 25. Musgrave '746 discloses a computer readable medium seen in Fig. 1.

9. Claims 6-10 and 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Marandi in view of Musgrave '746 as applied to claim 105, 11, 15-25 above, and further in view of Musgrave et al. (hereinafter, "Musgrave '699") (US 6,377,699).

Claim 6 is rejected the same as claim 1. Thus, arguments similar to that presented above for claim 1 is equally applicable to claim 6. Claim 6 distinguishes from claim 1 only in that it recites the media signal capture device being a camera with an eyepiece and including: capturing a retinal scan of the user through the eyepiece. Musgrave'699 discloses the media signal capture device being a camera with an eyepiece (imager 100 (digital camera) in Figs. 2A and 4) and including: capturing a retinal scan of the user through the eyepiece (capturing iris scan 150, 109 through the plane 140 in Fig. 2A. See, col. 5 lines 9-17 and col. 6 lines 61-65). Musgrave '699 captures the image of the iris rather than retinal scan. However, '746 disclosing scanning a retinal scan. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the teaching of Musgrave '699 and Musgrave '746 with Marandi. The motivation for doing so is that it would be obvious to take an image of the retina (the same way the image of iris is being captured in Musgrave '699 and the same way that the data information is being captured from the data card 14 in Marandi) to compare and authenticate the user for certain accessibility right and for ownership (i.e., watermark). Therefore, it would have been

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obvious to combine Musgrave '699 and Musgrave '746 with Marandi to obtain the invention as specified in claim 6.

With regards to **claim 7**, the recited features are the same as those in claim 1 (i.e., capturing the retinal scan of the user and encoding), and the arguments in paragraph 4 above as to the relevance of Musgrave '746 are incorporated herein.

With regard to **claim 8** Musgrave '699 discloses image sensor 100 as seen in Fig. 2A (col. 5 lines 6-11).

With regard to **claim 9** Musgrave '699 discloses the image sensor used to capture the retinal scan the same as the image sensor in the camera (imager 100 uses a digital camera, col. 6 lines 61-65).

With regard to **claim 10** Musgrave '746 discloses hashing a retinal scan image into retinal scan data (the biometric image scanned is transferred into biometric encoded bit stream 28. See, col. 3 lines 25-28 and col. 4 lines 6-8).

Claim 12 recites identical features as claim 6 except claim 12 is a device claim. Thus, arguments similar to that presented above for claim 6 is equally applicable to claim 12.

With regard to **claim 13** both Musgrave '699 and Musgrave '746 discloses camera and a scanner, respectively that includes an image sensor.

With regard to **claim 14** Musgrave '746 discloses the use attribute being encoded into the subject image (i.e., media signal) in response to user input instructing the user attribute into the media signal (user attribute is being scanned in order to embed the user attribute in the media signal as described above in claim 1. See, col. 3 lines 40-49).

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Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US 6,687,383; US 5,103,486; US 6,366,680.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shefali D Patel whose telephone number is 703-306-4182. The examiner can normally be reached on M-F 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo H Boudreau can be reached on 703-305-4706. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


DANIEL MARIANI
PRIMARY EXAMINER

Shefali D Patel
Examiner
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February 17, 2004